

This listing of claims replaces all prior versions, and listings of claims in the instant application:

**Listing of Claims:**

1. (Currently Amended) A method for presenting a runtime environment component service by a first computer system to a second computer system over a communication network, said method being performed by said first computer system and comprising:

generating a user interface infrastructure, on said first computer system, to receive graphic user interface events from a lightweight component on said second computer system and to send remote graphic user interface commands to said lightweight component on said second computer system, wherein said remote graphic user interface commands are used in generating a user interface on said second computer system for a user of said runtime environment component service on said first computer system

wherein said generating comprises:

receiving a call to a create bean window method of a bean service object executing on said first computer system from a bean object of said lightweight component executing on said second computer system; and

calling an initialize method by said bean service object to create a bean window object on said first computer system; and

using said user interface infrastructure to initialize said runtime environment component service on said first computer system wherein said using comprises:

calling, by said bean service object, a create instance method in an application programming

interface of a client factory object of said  
lightweight component;  
initializing a remote frame window object in  
said lightweight component by said client factory  
object executing on said second computer system; and  
further wherein said runtime environment  
component service sends graphic user interface  
commands to said user interface infrastructure  
on said first computer system;  
~~wherein~~ said second computer system  
comprises a client device; and  
said first computer system comprises a  
server device.

2. (Currently Amended) The method of Claim 1 further  
comprising:

receiving, by said bean window object in said user  
interface infrastructure, a remote input action event via  
said communication network, said remote input action event  
being generated in said second computer system by said  
lightweight component corresponding to said runtime  
environment component service on said first computer  
system.

3. (Currently Amended) The method of Claim 2 further  
comprising:

transmitting an input event from said bean window  
object to an application in said runtime environment  
component service ~~by said user interface infrastructure~~ in  
response to said remote input action event.

4. (Currently Amended) The method of Claim 3 further  
comprising:

processing said input event by said application in said runtime environment component service.

5. (Currently Amended) The method of Claim 4 further comprising:

generating a graphic user interface command to said ~~user interface infrastructure~~ bean window object by said application in said runtime environment component service.

6. (Currently Amended) The method of Claim 5 further comprising:

transmitting a remote graphic user interface command from said bean window object to said remote frame window in said lightweight component by ~~said graphic user interface infrastructure~~ in response to said graphic user interface command.

7. (Currently Amended) A method for presenting a runtime environment component service by a first computer system to a second computer system over a communication network, said method being performed by said first computer system and comprising:

receiving a remote input action command, ~~for~~ by a bean window object in a runtime environment component service on said first computer system, via said communication network, said remote input action command being generated in said second computer system by a remote frame window object in a lightweight component corresponding to said runtime environment component service on said first computer system;

transmitting a local input action command from said bean window object to an application in said runtime environment component service in response to said remote input action command;

processing said local input action command by said application in said runtime environment component service; generating a local output command by said application in said runtime environment component service ~~for a graphical user interface infrastructure to said bean window object~~ on said first computer system; and

transmitting a remote output command from said bean window object to said remote frame window in said lightweight component in response to said local output command wherein said remote output command is used in generating a user interface on said second computer system for a user of said runtime environment component service on said first computer system and further wherein said second computer system comprises a client device and said first computer system comprises a server device.

8. (Currently Amended) The method of Claim 7 wherein said application in said runtime environment component service is in an office application suite.

9. (Cancelled).

10. (Cancelled).

11. (Cancelled).

12. (Cancelled).

13. (Cancelled).

14. (Cancelled).

15. (Cancelled).

16. (Cancelled).

17. (Cancelled).

18. (Cancelled).

19. (Cancelled).

20. (Cancelled).

21. (Cancelled).

22. (Cancelled).

23. (Cancelled).

24. (Withdrawn) A computer program product comprising computer code comprising:

- a remote frame window class comprising:
- a remote output device interface; and
- a remote frame window interface.

25. (Withdrawn) The computer program product of Claim 24 wherein said computer code further comprises:

- a bean frame class comprising a frame interface.

26. (Withdrawn) The computer program product of Claim 24 wherein said computer code further comprises:

- a bean window class comprising:
  - an event handler interface; and
  - an window peer interface.

27. (Withdrawn) The computer program product of Claim 24 wherein said computer code further comprises:

an abstract windowing toolkit.

28. (Currently Amended) A computer program product comprising computer code for a method for presenting a runtime environment component service by a first computer system to a second computer system over a communication network, said method being performed by said first computer system, said method comprising:

generating a user interface infrastructure, on said first computer system, to receive graphic user interface events from a lightweight component on said second computer system and to send remote graphic user interface commands to said lightweight component on said second computer system, wherein said remote graphic user interface commands are used in generating a user interface on said second computer system for a user of said runtime environment component service on said first computer system

wherein said generating comprises:

receiving a call to a create bean window method of a bean service object executing on said first computer system from a bean object of said lightweight component executing on said second computer system; and

calling an initialize method by said bean service object to create a bean window object on said first computer system; and

using said user interface infrastructure to initialize said runtime environment component service on said first computer system wherein said using comprises:

calling, by said bean service object, a create instance method in an application programming interface of a client factory object of said lightweight component;

initializing a remote frame window object in said lightweight component by said client factory object executing on said second computer system; and

further wherein said runtime environment component service sends graphic user interface commands to said user interface infrastructure on said first computer system;

~~wherein~~ said second computer system comprises a client device; and

said first computer system comprises a server device.

29. (Currently Amended) A computer program product comprising computer code for a method for presenting a runtime environment component service by a first computer system to a second computer system over a communication network, said method being performed by said first computer system and comprising:

receiving a remote input action command, ~~for~~ by a bean window object in a runtime environment component service on said first computer system, via said communication network, said remote input action command being generated in said second computer system by a remote frame window object in a lightweight component corresponding to said runtime environment component service on said first computer system;

transmitting a local input action command from said bean window object to an application in said runtime environment component service in response to said remote input action command;

processing said local input action command by said application in said runtime environment component service;

generating a local output command by said application in said runtime environment component service ~~for a~~

~~graphical user interface infrastructure~~ to said bean window object on said first computer system; and

transmitting a remote output command from said bean window object to said remote frame window in said lightweight component in response to said local output command wherein said remote output command is used in generating a user interface on said second computer system for a user of said runtime environment component service on said first computer system and further wherein said second computer system comprises a client device and said first computer system comprises a server device.

30. (New) The method of Claim 1 wherein said generating comprises:

calling an initialize method, by said bean service object, to create a bean frame object on said first computer system.

31. (New) The method of Claim 30 further comprising:  
receiving, by said bean frame object, a load document command from said bean object of said lightweight component.

32. (New) The method of Claim 31 further comprising:  
calling, by said bean frame object in response to said load document command, an initialize method to initialize a window for an application in said runtime environment component service.

33. (New) The method of Claim 32 further comprising:  
calling, by said bean frame object, a load URL method in said application to load said document in said application.



34. (New) A method for presenting a runtime environment component service by a first computer system to a second computer system over a communication network, said method being performed by said first computer system and comprising:

generating a user interface infrastructure, on said first computer system, to receive graphic user interface events from a lightweight component on said second computer system and to send remote graphic user interface commands to said lightweight component on said second computer system, wherein said remote graphic user interface commands are used in generating a user interface on said second computer system for a user of said runtime environment component service on said first computer system,

wherein said generating comprises:

receiving a call to a create bean window method of a bean service object executing on said first computer system from a bean object of said lightweight component executing on said second computer system;

calling an initialize method by said bean service object to create a bean window object on said first computer system; and

calling an initialize method, by said bean service object, to create a bean frame object on said first computer system;

using said user interface infrastructure to initialize said runtime environment component service on said first computer system wherein said using comprises:

calling, by said bean service object, a create instance method in an application programming interface of a client factory object of said lightweight component;

initializing a remote frame window object in said lightweight component by said client factory object executing on said second computer system; and

further wherein said runtime environment component service sends graphic user interface commands to said user interface infrastructure on said first computer system;

said second computer system comprises a client device; and

said first computer system comprises a server device;

calling an initialize method, by said bean service object, to create a bean frame object on said first computer system;

receiving, by said bean frame object, a load document command from said bean object of said lightweight component;

calling, by said bean frame object in response to said load document command, an initialize method to initialize a window for an application in said runtime environment component service on said first computer system;

calling, by said bean frame object, load URL method in said application to load said document in said application; and

receiving, by said bean window object in said user interface infrastructure, a remote input action event via said communication network, said remote input action event being generated in said second computer system by said lightweight component corresponding to said runtime environment component service on said first computer system.